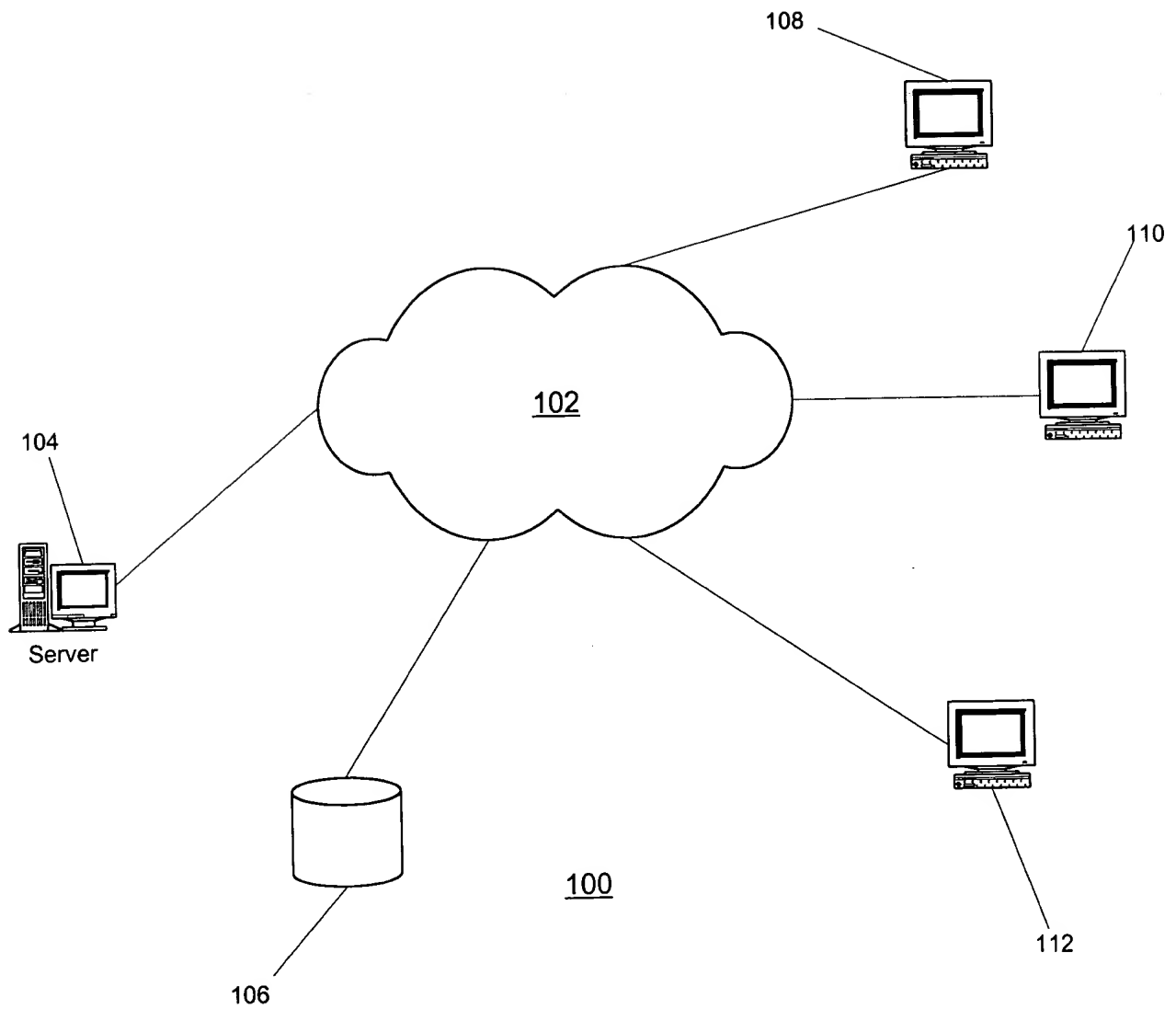
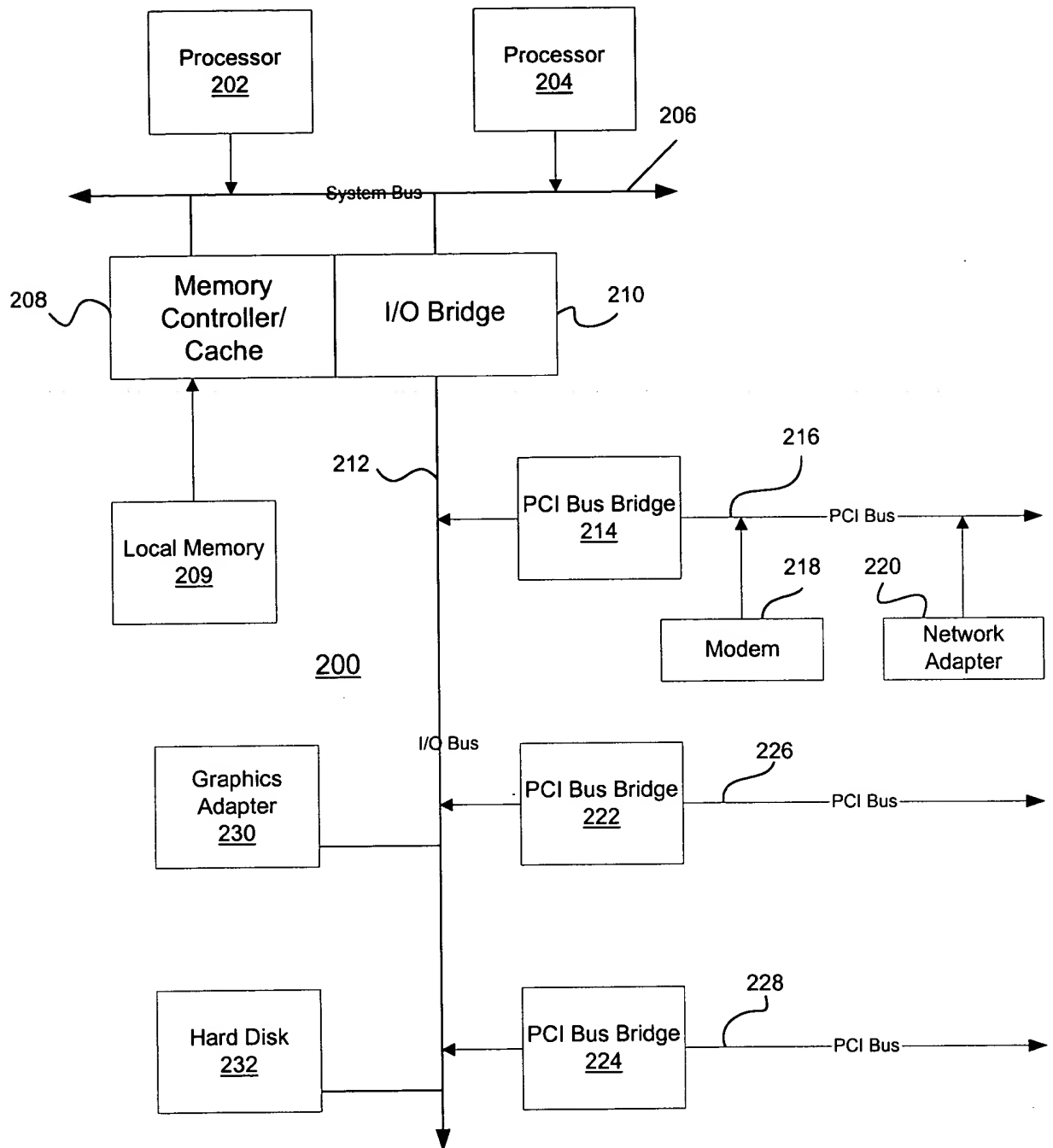


Figure 1

Network





server

Figure 2

Client

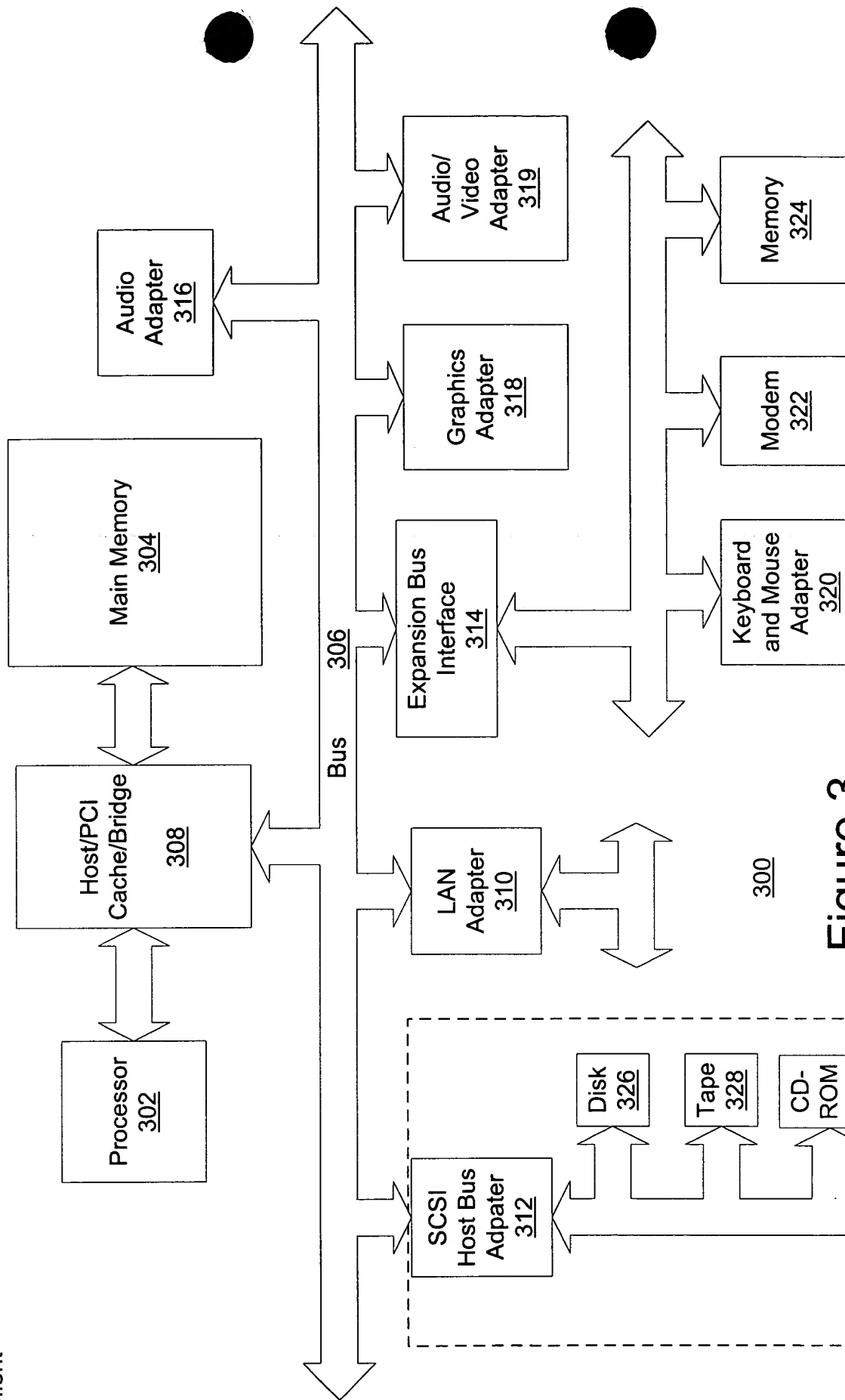


Figure 3

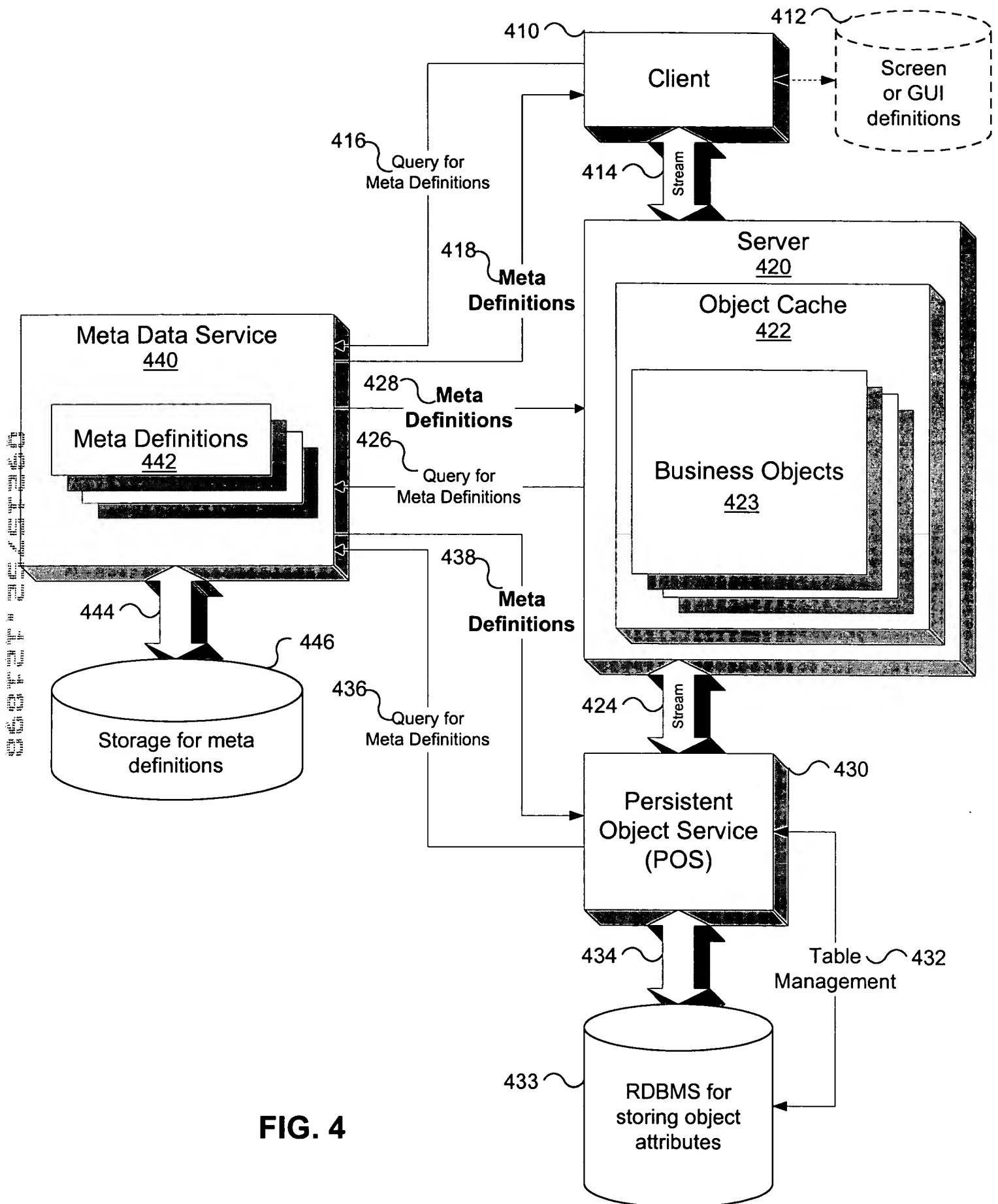


FIG. 4

500 510 520 530 540 550 560 570 580

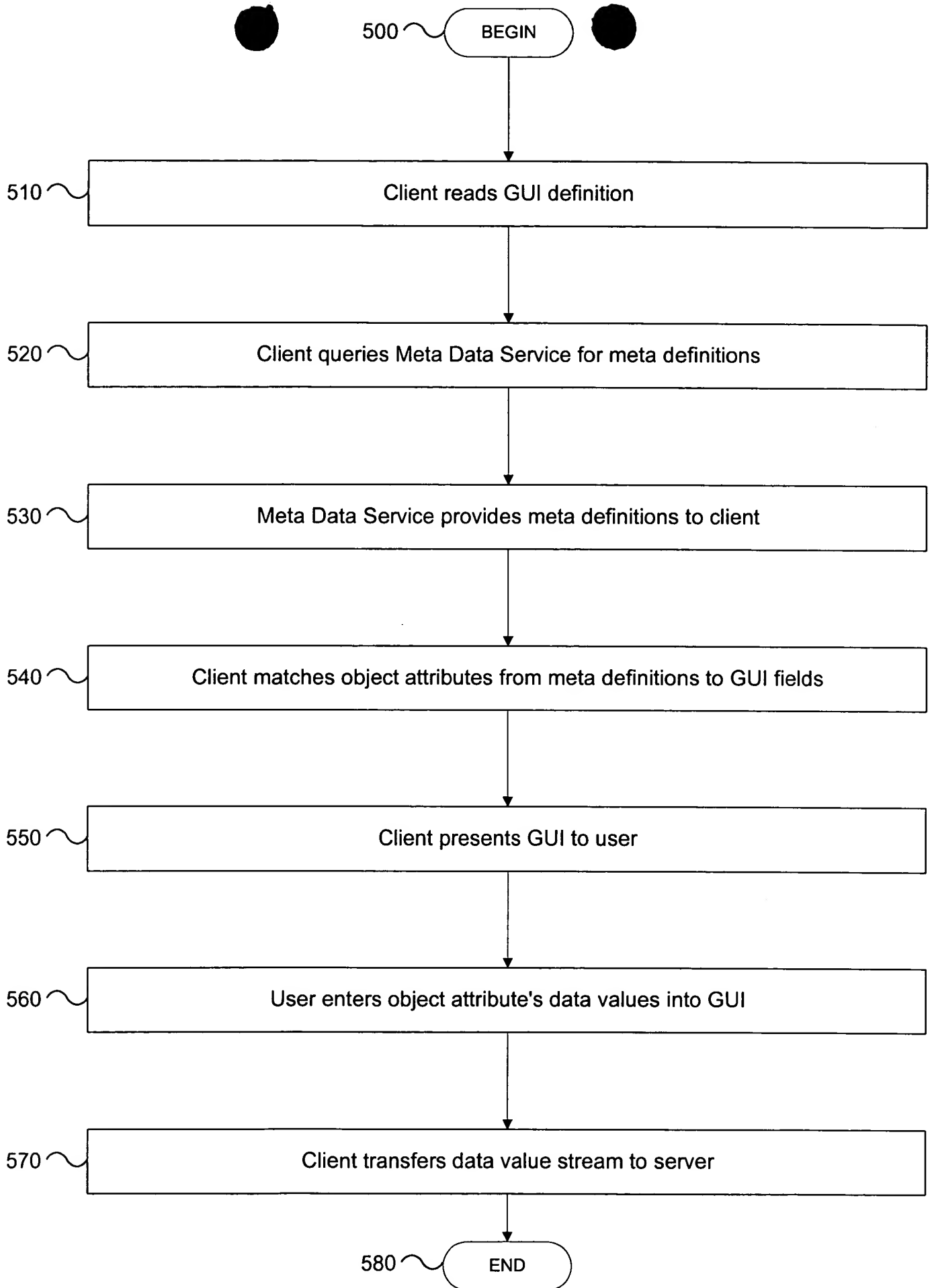


FIG. 5

600

BEGIN

610

Server receives data value stream from client

620

Server queries Meta Data Service for meta definition

630

Meta Data Service provides meta definition to server

640

Server performs attribute processing

650

Server transmits data value stream to Persistent Object Service

660

END

FIG. 6

700 ~ BEGIN

710 ~ Persistent Object Service (POS) receives data values for current object from server

720 ~ POS queries Meta Data Service for meta definition

730 ~ Meta Data Service provides meta definition to POS

740 ~ POS maps data values to relational tables in RDBMS according to meta definition

750 ~ POS transfers attribute values to RDBMS

760 ~ END

FIG. 7

800 ~~~~~

Customer Dialog [] [] [X]

Customer Account Address Products Services

811 ~~~~~ Name [] ~~~~~ 801

812 ~~~~~ Street [] ~~~~~ 802

813 ~~~~~ City [] ~~~~~ 803

814 ~~~~~ State [] ~~~~~ 804

815 ~~~~~ ZIP [] ~~~~~ 805

OK

Cancel

FIG. 8

900 ~~~~~ Customer Dialog [min] [max] [close]

Customer	Account	Address	Products	Services
911 ~~~~~ Name		901		
912 ~~~~~ Street		902		
913 ~~~~~ City		903		
914 ~~~~~ State		904		
915 ~~~~~ ZIP		905		
916 ~~~~~ Country		906		

OK

Cancel

FIG. 9

Meta definition

Name:	Address
ID:	1
# of base attributes:	6
# of extended attributes:	0
Attribute list	
1	Customer ID
2	Name
3	Street
4	City
5	State
6	Zip

FIG. 10A

Data stream for object

1
1
John Doe
101 Main Street
Anytown
IN
99999

FIG. 10B

Meta definition

Name:	Address
ID:	1
# of base attributes:	6
# of extended attributes:	1
Attribute list	
1	Customer ID
2	Name
3	Street
4	City
5	State
6	Zip
7	Country

FIG. 10C